

Product Datasheet

PADI4 Antibody (4D8) - Azide and BSA Free H00023569-M01

Unit Size: 0.1 mg

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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H00023569-M01

PADI4 Antibody (4D8) - Azide and BSA Free

Product Information	
Unit Size	0.1 mg
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	4D8
Preservative	No Preservative
Isotype	IgG2b Kappa
Purity	IgG purified
Buffer	In 1x PBS, pH 7.4
Product Description	
Description	Novus Biologicals Mouse PADI4 Antibody (4D8) - Azide and BSA Free (H00023569-M01) is a monoclonal antibody validated for use in IHC, WB, ELISA and ICC/IF. Anti-PADI4 Antibody: Cited in 2 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	23569
Gene Symbol	PADI4
Species	Human, Mouse
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 21415415).
Specificity/Sensitivity	peptidyl arginine deiminase, type IV
Immunogen	PADI4 (NP_004247, 2 a.a. ~ 110 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa. AQGTLIRVTPEQPTHAVCVLGLTLQLDICSSAPEDCTSFSINASPGVVVDIAHSP PAKKKSTGSSTWPLDPGVEVTLTMKAASGSTGDQKVQISYYGPKTPPVKALLY L
Notes	This product is produced by and distributed for Abnova, a company based in Taiwan.
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, ELISA, Immunocytochemistry/Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 1:500, ELISA 1:100-1:2000, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunohistochemistry-Paraffin 1:10-1:500
Application Notes	Antibody Reactive against Recombinant Protein with GST tag on ELISA and Western Blot. GST tag alone is used as a negative control. Use in Immunohistochemistry-Paraffin reported in scientific literature (PMID 21415415)

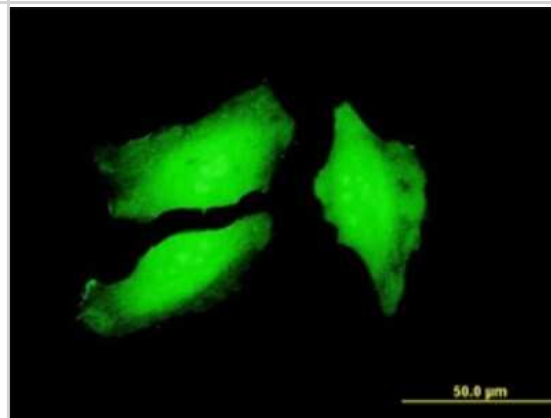


Images

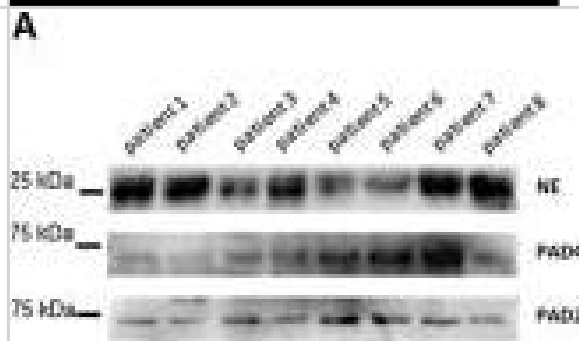
Western Blot: PADI4 Antibody (4D8) [H00023569-M01] - detection against Immunogen (38.1 KDa) .



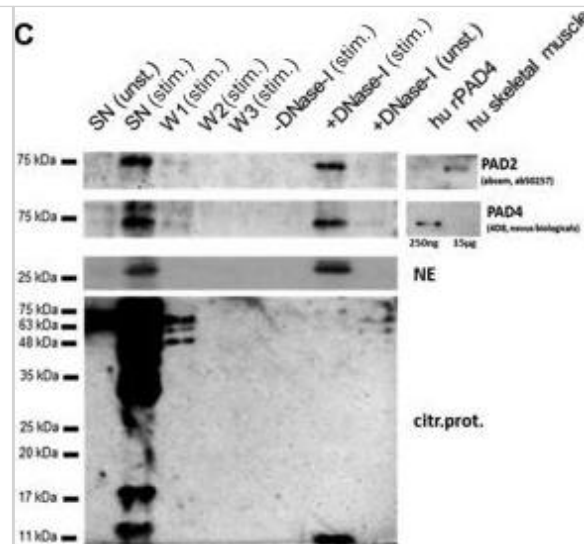
Immunocytochemistry/Immunofluorescence: PADI4 Antibody (4D8) [H00023569-M01] - Analysis of monoclonal antibody to PADI4 on HeLa cell . Antibody concentration 10 ug/ml.



Western Blot: PADI4 Antibody (4D8) [H00023569-M01] - Detection of enzymatically active peptidyl arginine deiminase (PAD) in the synovial fluid (SF) of patients with rheumatoid arthritis (RA). A, Immunoblotting of albumin-depleted SF samples from 8 RA patients shows presence of neutrophil elastase (NE), PAD4, & PAD2. B, PAD activity in the SF of patients with RA (n = 12) was significantly higher than that in the SF of patients with osteoarthritis (OA) (n = 9). C, PAD activity was observed in the OA SF & RA SF both at physiologic calcium concentrations & at higher calcium concentrations (5 mM). In B & C, symbols represent individual patients; horizontal bars show the median. D, PAD activity is significantly correlated with DNA levels in the SF of RA patients (n = 22). Data were analyzed using Spearman's rho test for correlation. □ = P < 0.05; □□ = P < 0.01, by Mann-Whitney U test. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/26245941>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: PADI4 Antibody (4D8) [H00023569-M01] - Release of peptidyl arginine deiminases (PADs) into the supernatant during NETosis, & detection of enzymatically active PADs. A, DNA release in peripheral blood neutrophils from healthy donors that were left unstimulated or stimulated with 25 mM phorbol myristate acetate (PMA) was assessed for up to 240 minutes after stimulation. Bars show the mean \pm SD of 8 samples per group. B, For isolation of neutrophil extracellular traps, supernatants (SN) of unstimulated (unst.) or stimulated (stim.) neutrophils were collected. Subsequently, the cells were washed 3 times with RPMI medium (W1–W3), & stimulated cells were incubated in the absence or presence of DNase I; unstimulated cells treated with DNase I served as a control. Bars show the mean \pm SD DNA concentration (conc) in 7 samples per group. C, Proteins (PAD2, PAD4, & neutrophil elastase [NE]) were precipitated from the same supernatants of unstimulated or stimulated cells as described in B & analyzed by Western blotting. Citrullinated proteins (citr.prot.) were detected using chemical modification & anti-modified citrulline antibody. PAD2 & PAD4 antibodies were tested for cross-reactivity using human (hu) recombinant PAD4 (rPAD4) (250 ng) & human skeletal muscle tissue lysate (15 μ g). One representative blot of 4 independent experiments is shown for each group. D, PAD activity in supernatants of unstimulated & stimulated cells was compared. Symbols represent individual donors ($n = 10$); bars show the median. $\square = P < 0.05$; $\square\square = P < 0.01$, by Wilcoxon's matched pairs signed rank test. AFU = arbitrary fluorescence units; NS = not significant. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/26245941>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Spengler J, Lugonja B, Ytterberg AJ et al. Release of Active Peptidyl Arginine Deiminases by Neutrophils Can Explain Production of Extracellular Citrullinated Autoantigens in Rheumatoid Arthritis Synovial Fluid. *Arthritis Rheumatol* 2015 -12-01 [PMID: 26245941] (WB)

Chumanevich AA, Causey CP, Knuckley BA et al. Suppression of colitis in mice by Cl-amidine: a novel peptidylarginine deiminase inhibitor. *Am J Physiol Gastrointest Liver Physiol*. 2011-06-01 [PMID: 21415415] (IHC-P, Mouse)



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Products Related to H00023569-M01

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-43317-0.5mg	Mouse IgG2b Kappa Light Chain Isotype Control (MG2b)

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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